THE ALFALFA PLANT'S REACTION TO GRAZING

Paul Deaton
Spahr Seed
Winchester, KY

Will the alfalfa plan survive grazing intensively by cattle? This question is asked most frequently these days.

Let's review the parts of an alfalfa plant to begin this discussion. Those parts are: Roots, crown and top growth. Alfalfa has a tap root which is used to store nutrient reserves for survival. It's ability to store these reserves and pull from them during times of stress (drought, cutting, etc.) makes it a very hardy plant.

The crown is the area which constitutes the union of the roots and the top growth. Many stems will develop and grow from the crown. These stems will compete for the nutrient reserves early and for the sunlight later in their growth.

The top growth of alfalfa is the material which is harvested for hay or grazed by cattle. The top most growth will be the most nutritious with the base of the stem near the crown being very woody and less desirable.

Removing the top growth places the plant in a stressful situation causing the alfalfa plant to pull on its root reserves for survival. Continuous grazing will kill the plant by depleting its supply of reserves.

A majority of the top growth must be removed for the plant to initiate new tillers (young stems) from the crown. This type of growth is more desirable than lateral tillering on existing stems.

As long as there is adequate top growth to support growth of the plant without pulling from the root reserves, the plant can survive. If continuous growth of the plant is occurring through root reserves, when this supply is exhausted, then the plant will die.

If these root reserves are maintained at an adequate level to support new growth (tiller development), especially during times of stress (drought, grazing, etc.) the plant will survive.

Yes, alfalfa can be grazed without stand destruction if these principles are satisfied.